

PHOTOGRAPHY HISTORY

Photography for Everyone. In 1888, George Eastman, an American dry-plate manufacturer, revolutionized photography by marketing the Kodak camera. The Kodak was a simple snapshot camera that could be used by amateurs. It held a roll of film that made a hundred pictures. After a person had used up the film, he returned the camera with the film still inside to Eastman's company in Rochester, N.Y. The company developed the film and printed the pictures, and returned the camera with a new roll of film in it.

The first roll film consisted of light-sensitive gelatin coated onto a paper backing. After the film had been developed, the gelatin emulsion was transferred from the paper onto a piece of glass. Then prints were made. Transferring the emulsion was difficult, and required too much skill for amateur photographers.

In 1889, Eastman substituted a Celluloid base for the paper. Printing photographs became much easier because the gelatin emulsion did not have to be removed from the base. Persons who wished to develop and print their own pictures could buy processing kits. Other persons followed Eastman's slogan: "You press the button, we do the rest." Photography became an international hobby.

During the late 1800's and early 1900's, scientists made other improvements in the tools and processes of photography. They introduced the time-temperature method of developing film, which greatly simplified the development process. They improved camera lenses, developed a precision enlarger, and increased the light-sensitivity of film and printing papers.

In 1924, the Leica camera was marketed in Germany. This miniature camera takes 35-millimeter film, the size used in making motion pictures. Many persons used the camera to take *candid photographs* (pictures taken without the subject's knowledge). In 1929, the

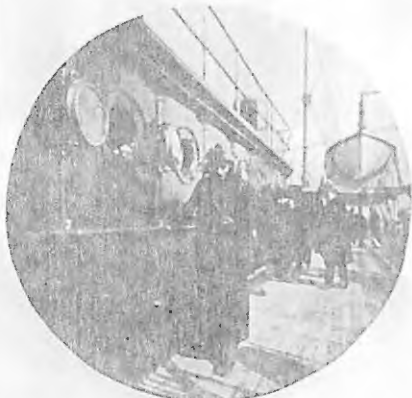
electric flashbulb was patented in Germany. Two years later, Harold E. Edgerton, an American engineer, developed electronic flash. Artificial lighting greatly increased the type of subjects that could be photographed.

As photography became more popular with amateurs, professional photographers advanced photography in new ways. A French photographer, Jean-Eugène Auguste Atget, took photographs of Paris showing the city's people and its historic buildings and statues. In the United States, Alfred Stieglitz worked to establish photography as a creative art. In 1902, he and other photographers formed the Photo-Secession, a group active in promoting photography as an art form until about 1910. One member, Edward Steichen, organized "The Family of Man" picture exhibit at New York City's Museum of Modern Art in 1955. It was one of the most popular exhibits ever held.

László Moholy-Nagy, a Hungarian who moved to the United States, made abstract photographs called *photograms*. He placed objects on a piece of printing paper in the darkroom and exposed them with a flash light. The American photographers Paul Strand and Edward Weston took detailed close-up photographs. Among Strand's photographs are large details of machines. Weston revealed the beauty of such natural shapes as peppers and cabbages. Walker Evans and Dorothea Lange photographed poverty-stricken farmers in the South during the 1930's.

Henri Cartier-Bresson, a French photographer, used a miniature camera to capture "decisive moments" in people's lives. His success in recording fleeting events and emotions has greatly influenced photojournalism. Margaret Bourke-White, an American, also produced important works of photojournalism. Ansel Adams, also of the United States, specialized in photographing scenes of nature, especially the mountains and deserts of the West.

Photography Today. Cameras and photographic equipment are both becoming more and more available.



George Eastman House

George Eastman holds one of the first Kodak cameras. The camera, identical with the one that took this picture in 1890, produced a hundred round negatives.



Alfred Stieglitz led the movement for creative photography in the early 1900's. He created the atmosphere of "Spring Showers" in this 1902 photograph.

Edward Weston in his "Halved Cabbage" shows his style of emphasizing textures and sharp, clean lines.



Many cameras have built-in exposure meters (see Camera Controls). Many darkrooms also have built-in cameras. Drydarkrooms have machines that can produce a print that is 80 per cent dry. An instant camera produces a print from black-and-white film in 10 seconds. This process, which took 60 years when it was introduced by Polaroid in 1947, has persons to make pictures without using a dark-

the number of photographers who use color in-
every year. Manufacturers are developing sim-
methods of processing color film so that amateur
photographers can develop their own color pictures. A
processing machine, introduced in 1963, produces
or print in seven minutes. Also in 1963, Polaroid
developed a color film for its camera that develops itself
about 60 seconds. In 1976, the Eastman Kodak
company began marketing an instant camera, Polaroid
which consists of a camera, an 8-millimeter film cas-
and a portable player with a screen. After filming,
cassette is inserted in the player. There, the film
develops and the movie is displayed on the screen.

Photography is taking an increasingly important
role in many fields of science. Special high-speed
cameras can show the tiny hummingbird in flight.
cameras can also reveal information about the
path of a bullet as it leaves a gun. Underwater cameras
look the secrets of a sunken ship, or let scientists
study the ocean floor. Infrared film that penetrates haze
a telescope, the camera provides detailed and perma-
nent records of the stars and planets. A camera attached
to a microscope can take enlarged pictures of tiny cells,
bacteria and bacteria (see Microscope Science Project).

Photography has an important part in military and
work. Aerial photographs are necessary in the

Arthur Siegel, an American free-lance photog-
rapher, specializes in picture stories for national
business and picture magazines. He is also noted for
his experimental work in color photography.



Margaret Bourke-White, Life © 1946 Time Inc.



Arthur Siegel

- 1977 Polaroid introduced a home movie system that developed
develops itself in the camera in about 60 seconds.
- 1963 The Polaroid Corporation marketed a color film that
gaining a new technique of 60-second photography.
- 1947 Edwin Land introduced his Polaroid Land Camera, be-
1942 Eastman Kodak introduced Kodachrome film.
- 1935 Eastman Kodak Company introduced Kodachrome film.
- 1931 Harold E. Edgerton developed electronic flash.
- 1924 The Leica camera went on the market, and started the
candid camera craze.
- 1888 George Eastman introduced the Kodak camera, which
made photography available to millions of persons.
- 1871 Richard L. Maddox introduced the dry-plate process,
replacing collodion with gelatin.
- 1851 Frederick Scott Archer introduced the wet-collodion
process, using glass plates to hold the emulsion.
- 1839 William H. F. Talbot announced his invention of a nega-
tive-positive process of making photographs.
- 1839 Louis J. M. Daguerre announced his daguerreotype
process, the first practical photographic method.
- 1836 Joseph Nicéphore Niépce made the first permanent pho-
tograph with a camera.

FAMOUS FIRSTS IN PHOTOGRAPHY

preparation of maps for any military action. These
photographs are made with highly specialized cameras
in airplanes. The use of aerial photography to make
maps of ground areas is called *photogrammetry*. Police
officials use photography when investigating almost
any crime. They need photographic records of the place
where the crime was committed. Pictures of a body, a
broken window, or a damaged safe are used as evidence
in many court trials. Pictures of fingerprints provide a
valuable clue to the identity of criminals. Photo-
graphers use infrared and ultraviolet films to make
burned documents readable, and to detect forgery or
illegal erasures on documents. These films record infra-
red or ultraviolet light that the eye cannot see.